

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/989,662  
Attorney Docket No.: Q67377

### REMARKS

Claims 1-20 are all the claims pending in the application. By this Amendment, Applicant editorially amends claim 18. The amendment to claim 18 was made to fix a typographical error, and does not narrow the literal scope of the claims and thus does not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claim 18 was not made for reasons of patentability.

### Preliminary Matter

Applicant thanks the Examiner for returning the initialed PTO/SB/08 filed with the Information Disclosure Statement on March 3, 2005. Applicant also thanks the Examiner for acknowledging the claim to foreign priority and for indicating receipt of the certified copy of the priority document.

### Summary of the Office Action

Claims 2-5, 7-10, and 12-15 contain allowable subject matter. Claims 1, 6, 11, and 16-20 are rejected under 35 U.S.C. § 103(a) in view of new references found by the Examiner.

### Claim Objection

Claim 18 is objected to because of minor informality. Applicant has revised claim 18, and respectfully submits that the claim as now presented no longer includes the typographical error mentioned by the Examiner. Applicant therefore respectfully requests the Examiner to withdraw the objection to claim 18.

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Claim Rejections

Claims 1, 6, 11, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,725,043 to Bonta et al. (hereinafter "Bonta") in view of U.S. Patent No. 5,268,933 to Averbuch (hereinafter "Averbuch"). Applicant respectfully traverses this rejection in view of the following comments.

Independent claim 1, among a number of unique features, recites "wherein said determining further comprises enabling for transmission all of the active set base stations depending on a state of transmission power value from said at least one currently transmitting base station." The Examiner acknowledges that Bonta fails to teach or suggest this exemplary feature of claim 1. The Examiner, however, alleges that Averbuch cures the deficient teachings of Bonta (*see* page 4 of the Office Action).

Specifically, the Examiner alleges that "[i]t should be noticed that Bonita fails to teach the determine all the transmission of all base stations based on the quality of communication from the currently transmitting base station...[h]owever Averbuch teaches such features" (*see* page 4 of the Office Action). Applicant respectfully disagrees. First, Applicant respectfully points out that claim 1 recites: "wherein said determining further comprises enabling for transmission..." and not simply determining the base stations.

Moreover, Averbuch teaches a conventional soft handoff and is no different from Weaver. Specifically, Averbuch discloses that as the mobile 125 moves away from the serving base-station 130, the quality of communication will degrade between the mobile 125 and the serving base-station 130. When the communication degrades below an acceptable level, the mobile 125 is sent a list of all the target base-stations 131-134 and is told by the serving base-

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station 130 to determine if one of the target base-stations 131-134 is potentially a handoff candidate. Accordingly, the mobile station first measures the signal quality information signal, or a signaling channel, transmitted by each of the target base-stations 131-134 to produce a signal quality value for each measured signaling channel. Then, the mobile 125 either sends the measured signal quality values back to the serving base-station 130 or makes "a handoff decision itself based on the values" (col. 4, lines 35 to 60).

As is clear, Averbuch only teaches that the mobile measures the signal quality of possible candidates and based on the measured plural values, makes a handoff decision. That is, Averbuch does not teach or suggest enabling all of the base stations participating in the handover for transmission depending on the transmission power from the currently transmitting base station. In fact, Averbuch only discloses measuring signal quality of the base stations on the list of possible candidates (the neighboring cells) and based on this make a handoff decision. The base stations on the list are clearly not the currently transmitting base station but a "list of all the target base-stations 131-134," potential handoff candidates. In other words, in Averbuch, the enablement for the base stations is not based on the currently transmitting base station 130 but based on the measured quality of signal of the potential candidates for the handoff (base stations 131-134).

Furthermore, Averbuch only discloses picking a base station based on quality of communication and not based on the transmission power from said at least one currently transmitting base station. That is, Averbuch discloses that picking a base station based on the quality of communication. The quality of communication, however, depends on the reception

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power measured at the mobile station. Accordingly, it is improper to equate Averbuch's quality of communication with the transmission power at the base station, as set forth in claim 1. The transmission power is increased not by degradation of the quality of communication but by reception errors of transmission power control signals unnecessarily.

In addition, Averbuch does not teach or suggest determining whether to enable all base stations participating in the handover as the transmitting base stations. Averbuch only discloses picking base-stations for a handover (selecting candidates based on the quality of signal). That is, Averbuch only teaches a conventional soft handover procedure where the mobile determines whether a base-station from the list is a potential candidate for a handover based on its measured quality of signal. In short, Averbuch clearly does not teach enabling for transmission all of the base stations participating in the handover based on the transmission power of the currently transmitting base station.

Also, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner. A critical step in analyzing the patentability of the claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. *See In re Kotzab*, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000) (citing *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)).

*Most if not all inventions arise from a combination of old elements. In re Kotzab*, 55 USPQ2d at 1316 (citing *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir.

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1998). Thus, every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, *there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.* *In re Kotzab*, 55 USPQ2d at 1316 (citing *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); and *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)).

Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, **must nevertheless be "clear and particular."** *Winner International Royalty Corporation v. Ching-Rong Wang*, 53 USPQ2d 1580, 1586-87 (Fed. Cir. 2000).

The Examiner alleges that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Averbuch into Bonta, in order to improve the soft handoff as suggested by Bonta at column 1, line 38-46" (see page 4 of the Office Action). Column 1, lines 38-46 of Bonta disclose:

[c]ellular systems have always been faced with the challenge of reducing or eliminating dropped calls. However, in an interference-limited environment, when the traffic channel degrades, the ability for the mobile and the infrastructure to exchange signaling messages for the purpose of handover is severely hampered. If this message exchange cannot take place, then the necessary handover cannot occur to move the mobile out of its current degraded traffic channel condition. This ultimately results in a dropped call.

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To address this problem, Bonta discloses a method and apparatus for a handoff to a rescue channel without the need to send and receive handoff control messages i.e., by disabling the mobile transmitter followed by subsequent detection of signal loss and frame erasures at the serving cells, and then by enabling the mobile transmitter followed by subsequent detection of a signal by a rescue cell, and finally by enabling the rescue cell channel transmitter followed by subsequent detection and reception of signal and frames by the mobile (col. 2, lines 31 to 43).

Averbuch, on the other hand, discloses a communication system that provides data packet timing alignment to facilitate soft handoff. A vocoder transmits compressed voice frames to base-stations along links of variable length. The variable length translates to a delay in the air-frames to be transmitted by the base-stations. To compensate for the time delay, the communication system advances both sets of air-frames to be transmitted by base-stations by at least the delay time so that skipping of frames, relative to an air-frame reference during transmission does not occur (*see Abstract*).

That is, Bonta discloses that a method for a handoff to a rescue channel without the need to send and receive handoff control messages *i.e.*, by disabling the mobile. If the mobile is disabled, there is no point to synchronize the timing of the soft handoff, as taught by Averbuch. Moreover, Bonta teaches away from the method disclosed in Averbuch. In fact, Bonta discloses that "even with the support of soft handoff, there are many times that degraded traffic channel conditions will interrupt the ability for the mobile unit and the infrastructure to successfully perform a handoff procedure utilizing communication signals in an interference-limited system (col. 6, lines 47 to 53)". To solve these problems, a rescue channel is introduced (col. 6, line 54

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to col. 7, line 3). If there is no need to send control messages and a rescue channel is preferred, then there is no need for the synchronization, as disclosed in Averbuch. In other words, Bonta teaches away from using the control messages and accordingly, teaches away from the synchronization technique of Averbuch, in favor of the rescue channel. In short, one of ordinary skill in the art would not have been motivated and could not have combined these two references in the manner suggested by the Examiner.

Therefore, "wherein said determining further comprises enabling for transmission all of the active set base stations depending on a state of transmission power value from said at least one currently transmitting base station," as recited in claim 1 is not taught or suggested by the combined teachings of Bonta and Averbuch, which lack basing the decision to activate or enable all of the base stations from the active set participating in a handoff based on the transmission power value of the currently transmitting base station. For at least these exemplary reasons, Applicant respectfully submits that claim 1 is patentable over the combined teachings of Bonta and Averbuch. Therefore, it is appropriate and necessary for the Examiner to withdraw this rejection of claim 1.

Independent claims 6, 11, and 20 recite features similar to the features argued above with respect to claim 1. Therefore, these arguments are submitted to apply with equal force herein. For at least substantially similar reasons, therefore, claims 6, 11, and 20 are patentable over the combined teachings of Bonta and Averbuch.

Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonta in view of Averbuch, and further in view of U.S. Patent No. 6,434,367 to Kumar et al. (hereinafter

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"Kumar") and claims 17-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonta in view of Averbuch, and further in view of U.S. Patent No. 5,854,785 to Willey (hereinafter "Willey"). Applicant respectfully traverses in view of the following comments.

Claims 16 and 17 dependent on claim 1, claim 18 depends on claim 6, and claim 11 depends on claim 19. Applicant has already demonstrated that the combined teachings of Bonta and Averbuch do not teach or suggest all of the unique features of these independent claims 1, 6, and 11. Kumar and Willey do not cure the above-identified deficiencies of Bonta and Averbuch. Accordingly, claims 16-19 are patentable at least by virtue of their dependency on the independent claims 1, 6, and 11.

#### Allowable Subject Matter

The Examiner indicated that claims 2-5, 7-10, and 12-15 contain allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant respectfully holds the rewriting of these claims in abeyance until arguments presented with respect to independent claims 1, 6, and 11 have been reconsidered.

#### Conclusion

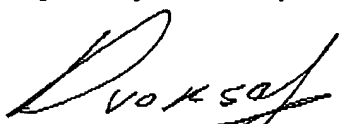
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.



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Respectfully submitted,



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